

Amendments to the claims:

Please cancel claims 2, 10, and 11 without prejudice. Please amend claims 1, 4, 9, 12, 13, 15, 16, and 18 as follows.

1. (Currently amended) A method for synthesizing carbon nanotubes using magnetic fluid by thermal chemical vapor deposition, which comprises the steps of:

(S1) producing a catalytic metal compound using the magnetic fluid, and then adding a binder to the catalytic metal compound;

(S2) coating the produced catalytic metal compound on a substrate by injection or by dipping the substrate in a catalytic metal compound solution; and

(S3) synthesizing the carbon nanotubes.

2. (Canceled)

3. (Original) The method of claim 1, wherein the magnetic fluid is produced from iron chloride.

4. (Currently amended) The method of claim 1, wherein the step (S1) comprises the steps of:

(S1-1) producing an aqueous iron chloride solution with ferrous chloride, ferric chloride and distilled water;

(S1-2) heating and stirring the aqueous iron chloride solution;

(S1-3) adding ammonium hydroxide to the aqueous iron chloride solution to produce

magnetite (Fe_3O_4) particles;

(S1-4) adding a surfactant to the aqueous iron chloride solution;

(S1-5) adding water and acetone to the aqueous iron chloride solution to separate the magnetite particles from liquid; and

(S1-6) producing a solution of catalytic metal compound with the magnetite particles, distilled water and a binder.

5. (Original) The method of claim 4, wherein the steps (S1-1) and (S1-3) further comprise adjusting the amount of iron chloride and ammonium hydroxide to obtain the magnetite (Fe_3O_4) particles of a desired size.

6. (Original) The method of claim 5, wherein the magnetite (Fe_3O_4) particles have a diameter of 10-100 nm.

7. (Original) The method of claim 4, wherein the surfactant used in the step (S1-4) is a fatty acid.

8. (Original) The method of claim 7, wherein the fatty acid is $\text{CH}_3(\text{CH}_2)_8\text{CO}_2\text{H}$.

9. (Currently amended) The method of claim 7, wherein a portion of the fatty acid is added several times ~~with interval~~ in intervals.

10-11. (Canceled)

12. (Currently amended) The method of claim 10, wherein the coating further comprises spin-coating the catalytic metal compound with a spin coater.

13. (Currently amended) The method of claim 11, wherein the coating additionally comprises spin-coating the catalytic metal compound with a spin coater.

14. (Original) The method of claim 12, wherein the spin-coating is performed at a rotational speed of about 100-5,000 rpm.

15. (Currently amended) The method of claim ~~2~~ 1, wherein the binder is a ceramic binder.

16. (Currently amended) The method of claim 1, wherein the step (S3) comprises step (S3-1) of charging the substrate coated with the catalytic metal compound into a heating device, into which a source gas is then introduced to synthesize the carbon nanotubes on the substrate.

17. (Original) The method of claim 16, wherein the source gas comprises acetylene, ammonia and hydrogen.

18. (Currently amended) The method of claim 16, wherein the carbon nanotubes are synthesized at an atmospheric temperature of about 800-900 °C, after the substrate coated with the catalytic metal compound is charged into the heating device.

19. (Original) The method of claim 1, wherein the steps (S2) and (S3) further comprise coating the substrate in a batch process, and continuously charging the substrate into the heating device.

20. (Original) The method of claim 19, wherein prior to charging the substrate into the heating device, the atmospheric temperature in the device is a temperature for synthesizing the carbon nanotubes.